WHAT IS CLAIMED IS:

1. A magnetoresistive head, comprising;

a first magnetic shield;

a first insulating film formed on the first magnetic shield;

a magnetoresistive film formed on the first insulating film and comprising a magnetization free layer adjacent to an air-bearing surface, a magnetization pinned layer apart from the magnetization free layer in a head height direction as viewed from the air-bearing surface, and a nonmagnetic intermediate layer connecting the magnetization free layer and the magnetization pinned layer, a magnetization direction of the magnetization free layer being rotatable in an external magnetic field and a magnetization direction of the magnetization pinned layer being substantially pinned under the external magnetic field;

a second insulating film formed on the first magnetoresistive film, and

a second magnetic shield formed on the second insulating film.

2. The magnetoresistive head according to claim 1, further comprising an electrode configured to electrically connect one of the first and second magnetic shields to the magnetization free layer.

3. The magnetoresistive head according to claim 2, wherein the electrode is formed of a

nonmagnetic material.

4. The magnetoresistive head according to claim 2, wherein a width of the electrode in a track width direction is smaller than a width of the magnetization free layer in the track width direction.

5. The magnetoresistive head according to claim 1, wherein the intermediate layer is sandwiched between the magnetization free layer and the magnetization pinned layer in the height direction as viewed from the air-bearing surface.

6. The magnetoresistive head according to claim 1, wherein an insulating layer is sandwiched between the magnetization free layer and the magnetization pinned layer in the height direction as viewed from the air-bearing surface, and wherein the magnetization free layer and the magnetization pinned layer are formed on same side of the intermediate layer.

7. The magnetoresistive head according to claim 1, further comprising an under layer and a protective layer, the magnetization free layer being a ferromagnetic layer formed between the under layer and the protective layer.

8. The magnetoresistive head according to claim 1, further comprising an under layer, a biasing layer formed on the under layer, and a protective layer, the magnetization free layer being a

ferromagnetic layer formed between the biasing layer and the protective layer, and the protective layer is formed on the ferromagnetic layer.

9. The magnetoresistive head according to claim 1, further comprising an underlayer, a biasing layer, and a protective layer formed on the biasing layer, the magnetization free layer being a ferromagnetic layer formed between the underlayer and the biasing layer.

10. The magnetoresistive head according to claim 1, further comprising an underlayer, an antiferromagnetic layer, and a protective layer formed on the antiferromagnetic layer, the magnetization pinned layer being a ferromagnetic layer formed between the under layer and the antiferromagnetic layer.

11. The magnetoresistive head according to claim 1, further comprising an underlayer, an antiferromagnetic layer formed on the underlayer, and a protective layer, the magnetization pinned layer being a ferromagnetic layer formed between the antiferromagnetic layer and the protective layer.

12. The magnetoresistive head according to claim 1, further comprising an underlayer and a protective layer, the magnetization pinned layer being a hard magnetic layer formed between the under layer and the protective layer.

13. The magnetoresistive head according to

claim 1, wherein hard biasing layers are formed on both sides of the magnetization free layer in a track width direction.

14. The magnetoresistive head according to claim 1, wherein the magnetization pinned layer has a thickness larger than that of the magnetization free layer.

15. The magnetoresistive head according to claim 1, wherein the nonmagnetic intermediate layer has a thickness of not more than 2.0 nanometers.

16. A magnetoresistive head, comprising a first magnetic shield, a first insulating film, a first magnetoresistive film, a third insulating film, a second magnetoresistive film, a second insulating film and a second magnetic shield arranged in a track direction,

each of the first and second magnetoresistive films comprising: a magnetization free layer formed in a region near an air-bearing surface, a magnetization direction thereof being rotatable with an external magnetic field; a magnetization pinned layer formed apart from the magnetization free layer in a height direction as viewed from the air-bearing surface, a magnetization direction thereof being substantially pinned under an external magnetic field; and a nonmagnetic intermediate layer connecting the magnetization free layer and the magnetization pinned

layer.

17. The magnetoresistive head according to claim 16, further comprising:

an electrode configured to electrically connect the first magnetic shield to the magnetization free layer in the first magnetoresistive film, and

another electrode configured to electrically connect the second magnetic shield to the magnetization free layer in the second magnetoresistive film.

18. A magnetic recording-reproducing apparatus, comprising the magnetoresistive head according to claim 1.

19. A method of manufacturing a magnetoresistive head, comprising;

forming a ferromagnetic film on a first insulating film,

forming first and second ferromagnetic portions from the ferromagnetic film through etching process, the first ferromagnetic portions being adjacent to an intended air-bearing surface, the second ferromagnetic portions being recessed in a height direction from the intended air-bearing surface;

forming a nonmagnetic portion between the first and second ferromagnetic portions; and

forming a second insulating film over the first and second ferromagnetic portions and the nonmagnetic portion.

20. A method of manufacturing a magnetoresistive head, comprising;

forming a ferromagnetic film on a nonmagnetic layer,

forming first and second ferromagnetic portions from the ferromagnetic film by etching process, the first ferromagnetic portions being adjacent to an intended air-bearing surface, the second ferromagnetic portions being recessed in a height direction from the intended air-bearing surface;

forming an insulating material between the first and second ferromagnetic portions; and

forming a second insulating film over the first and second ferromagnetic portions and the insulating material.